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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/050,046	01/17/2002	Joseph F. Arnold	1823.0560000	1183

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EXAMINER

VALENTIN, JUAN D

ART UNIT	PAPER NUMBER
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2877

DATE MAILED: 05/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/050,046

Applicant(s)

ARNOLD ET AL.

Examiner

Juan D Valentin II

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18-26 is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-14, 16, 27, 28, 30, & 32-37 is/are rejected.
- 7) ☒ Claim(s) 8, 15, 17, 29, 31, & 33 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the uniform illumination of the platen whereby, all or part of a palm can be placed on the platen and an image representative of a palm print can be detected must be shown or the feature(s) canceled from the claim(s). Also the uniform illumination of the platen, whereby, one or more fingers from one or two hands can be placed on the platen and an image representative of a corresponding fingerprint can be detected must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 9, 10, 27, 28, 34, & 37 rejected under 35 U.S.C. 102(b) as being fully anticipated by Schiller (USPN '353).

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Claim 1

Schiller discloses in conjunction with Fig. 1, a hybrid illumination system that provides illumination for a platen (22) in a print scanner comprising an illumination source array that emits light from a plurality of discrete light sources (10 & 12). Schiller discloses at least one diffuser (14) and a collimating lens (16), each diffuser being disposed between said illumination source array and said collimating lens such that at least a portion of the light emitted from said plurality of discrete light sources passes through each diffuser to said collimating lens as diffuse light. It is the position of the Office that the structural limitations have been taught by Schiller, therefore Schiller discloses wherein at least a first portion of light that exits said collimating lens falls on the platen as collimated light, and at least a second portion of light that exits said collimating lens falls on the platen as diffuse light. Applicant will be appreciated that the reference of Schiller reads on the claimed limitations.

Claims 9 & 10

Schiller further discloses in conjunction with Fig. 2, comprising a prism (22) wherein said prism is provided between said collimating lens (22) and the platen (22b).

Claim 27

Schiller discloses in conjunction with Fig. 1, a method for providing efficient, uniform illumination to a platen, comprising emitting light from a plurality of discrete sources (10 & 12), randomizing at least part of the emitted light to obtain diffuse light. Schiller discloses collimating at least a part of the diffuse light to obtain collimated, diffuse light and illuminating the platen with the collimated diffuse light such that an image of a print of a finger or palm placed on the platen can be obtained (col. 3, lines 8-28).

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Claim 28

Schiller further discloses in conjunction with Fig. 1, wherein randomizing step comprises passing the emitted light (18 & 20) through at least one diffuser (14).

Claim 34

Schiller discloses in conjunction with Fig. 2, a system for providing efficient, uniform illumination to a platen, comprising means for emitting light (10), means for randomizing the emitted light to obtain diffuse light (14) and means for collimating the diffuse light to obtain collimated, diffuse light (16) (col. 3, lines 8-28). It is the position of the Office that the structural limitations have been taught by Schiller, therefore Schiller discloses the platen being illuminated with the collimated, diffuse light such that an image of a print of a finger or palm placed on the platen having grey scale shading can be obtained. Applicant will be appreciated that the reference of Schiller reads on the claimed limitations.

Claim 37

Schiller discloses a method for efficiently illuminating a platen in a print scanner having a telecentric optical system comprising emitting light from a plurality of discrete sources, randomizing at least part of the emitted light to obtain diffuse light, and collimating at least a part of the diffuse light to obtain first and second portions of collimated, diffuse light (col. 3, lines 8-28). It is the position of the Office that the structural limitations have been taught by Schiller, therefore Schiller discloses illuminating the platen with the first and second portions of collimated diffuse light, wherein the first portion of collimated diffuse light falls on the platen as collimated light and the second portion of collimated diffuse light falls on the platen as diffuse light.

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2. Claims 35-36 rejected under 35 U.S.C. 102(b) as being fully anticipated by Immega (USPN '443).

Claim 35

Immega discloses in conjunction with Fig. 5, emitting light in a blue/green spectrum from a plurality of discrete sources (41) and illuminating a platen (6) with at least part of the emitted light in the blue/green spectrum (col. 6, lines 20-29).

Claim 36

It is obvious to someone of ordinary skill in the art that the green light source comprises the 510 nm wavelength. Therefore Applicant will be Appreciated that the reference of Immega read on the claimed limitation.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2-7 rejected under 35 U.S.C. 103(a) as being unpatentable over Schiller in view of Rajbenbach et al. (USPAP 2002/0106115, hereinafter Rajbenbach).

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Claims 2-7

Schiller discloses in conjunction with Fig. 2, a glass diffuser located near a collimating lens (16) and a second diffuser located near the illumination source.

Schiller substantially teaches the claimed invention except that it fails to show the use of a holographic diffusers. Rajbenbach shows that it is known to provide a holographic diffuser [0051] for a finger print acquisition system. It would have been obvious to someone of ordinary skill in the art to combine the device of Schiller with the holographic diffuser of Rajbenbach for the purposes of providing scattering of light towards the finger.

4. Claims 11, 12, & 30 rejected under 35 U.S.C. 103(a) as being unpatentable over Schiller in view of Immega et al. (USPN '443, hereinafter Immega).

Claims 11 & 30

Schiller substantially teaches the claimed invention except that it fails to show said emitting step includes emitting blue/green light. Immega shows that it is known to provide a blue and green light source (col. 6, lines 20-29) for a finger print reader. It would have been obvious to someone of ordinary skill in the art to combine the device of Schiller with the blue and green light source of Immega for the purposes of providing color video imaging.

Claim 12

It is obvious to someone of ordinary skill in the art that the green light source comprises the 510 nm wavelength. Therefore Applicant will be Appreciated that the reference of Schiller in view Immega read on the claimed limitation.

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5. Claims 13 & 14 rejected under 35 U.S.C. 103(a) as being unpatentable over Schiller in view of Immega and further in view of Johnson (USPN '969 B2).

Claims 13 & 14

Schiller substantially teaches the claimed invention except that it fails to show said emitting step includes emitting blue/green light. Immega shows that it is known to provide a blue and green light source (col. 6, lines 20-29) for a finger print reader. It would have been obvious to someone of ordinary skill in the art to combine the device of Schiller with the blue and green light source of Immega for the purposes of providing color video imaging.

Schiller in view of Immega substantially teaches the claimed invention except that it fails to show said emitting step includes emitting blue/green light. Immega shows that it is known to provide an illumination source array comprises sixty-four or thirty light emitting diodes (col. 6, lines 20-29) for a finger print reader. It would have been obvious to someone of ordinary skill in the art to combine the device of Schiller in view of Immega with the LED network of Johnson for the purposes of providing desired accuracy of fingerprint extraction and digitization.

It is the position of the Office that even though the reference of Schiller in view of Immega and further in view of Johnson does not specifically disclose the use of sixty-four or thirty LED's, it does outline the importance of a Led array, having **a network of LED's** (Johnson, col. 3, lines 49-57). In light of the applicants disclosure, there is no critically distinguishing feature pertaining to the actual number of LED's used in the applicants disclosure that exemplifies novelty over prior art disclosure. Therefore, producing the same results as the applicants limitation, therefore the reference of Schiller in view of Immega and further in view of Johnson reads on applicants claimed limitation.

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Schiller in view of Immega and further in view of Johnson discloses the claimed invention except it fails to show uniform illumination of the platen, whereby, all or part of a palm can be placed on the platen and an image representative of a palm print can be detected. It would have been obvious to someone of ordinary skill in the art at the time of the claimed invention to combine Schiller in view of Immega and further in view of Johnson with an illumination system where the palm can be placed on the platen and an image representative of a palm print can be detected since it was well known in the art that images of finger and palm prints can be extracted and used for identification purposes.

6. Claims 16 & 32 rejected under 35 U.S.C. 103(a) as being unpatentable over Schiller in view of Johnson.

Claims 16 & 32

Schiller substantially teaches the claimed invention except that it fails to further comprising independently controlling the intensity of each source relative to other sources such that a flat uniform illumination is provided to the platen. Johnson shows that it is known to provide independently controlling the intensity of each source relative to other sources such that a flat, uniform illumination is provided to the platen (col. 4, lines 22-59) for a finger print reader. It would have been obvious to someone of ordinary skill in the art to combine the device of Schiller with the independently controlling the intensity of each source of Johnson for the purposes of providing sequentially triggered light-emitting diode illumination on a finger.

Allowable Subject Matter

7. Claims 18-26 are allowed over prior art of record.
8. Claims 8, 15, 17, 29, 31, & 33 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 8, the prior art fails to disclose or make obvious a hybrid illumination system further comprising a mirror positioned between said first diffuser and said second diffuser and in combination with the other recited limitations of claim 7.

Regarding claim 15 & 31, the prior art fails to disclose or make obvious an illumination system wherein a plurality of sources are divided into at least a center region and a perimeter region, wherein the density of sources provided in said perimeter region is greater than in said center region and in combination with the other recited limitations of claim 1.

Regarding claim 17 & 33, the prior art fails to disclose or make obvious a plurality of sources is divided into at least three groups in at least three respective zones and in combination with the other recited limitations of claim 1 & 27, respectively.

Regarding claim 18, the prior art fails to disclose or make obvious a light wedge having one end surface that receives light emitted from said illumination source array and a reflective surface that reflects light out of said light wedge toward the platen and in combination with the other recited limitations of claim 18. Claims 19-26 are allowed by virtue of dependency on the allowed claim 18.

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Regarding claim 29, the prior art fails to disclose or make obvious a randomizing step comprising passing the emitted light through a light wedge and in combination with the other recited limitations of claim 27.

Conclusion

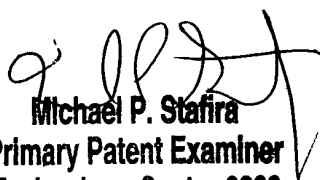
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juan D Valentin II whose telephone number is (703) 605-4226. The examiner can normally be reached on M-Th., Every other Fr..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on (703) 308-4881. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308- 0955.



Juan D Valentin II
Examiner 2877
JDV
May 5, 2003



Michael P. Stafira
Primary Patent Examiner
Technology Center 2800